



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,844	12/21/2004	Benoit Saliou	FR 020068	1283
24737 7590 08/05/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
			EXAMINER KIM, TAE K	
			ART UNIT 2153	PAPER NUMBER
			MAIL DATE 08/05/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/518,844

Applicant(s)

SALIOU ET AL.

Examiner

TAE K. KIM

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This is in response to the Applicant's response filed on April 8, 2008. Claims 1 – 15, where Claims 1 and 2 are in independent form, are presented for examination.

Claim Objections

Claim 3 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Amended Claim 2 already encompasses the limitations disclosed in Claim 3.

Response to Arguments

Applicant's arguments filed on April 8, 2008 have been fully considered but they are moot based on the new grounds of rejection, regarding prior art, as stated below. Statutory rejections are rebutted below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Regarding Claim 5, Applicant suggests that the specification, particularly "[the] boot sector...can even be stored in ROM memory," discloses that the boot sector can be stored outside the storage unit. Examiner disagrees with Applicant's assessment. The quoted portion of the specification merely suggests that the storage unit can be ROM memory, not that the boot sector is stored in ROM separate from the storage unit.

This is further emphasized by Figures 1 and 2, where no separate memory location outside the storage unit is used to implement the claimed methods. Applicant's argument is not persuasive.

2. Regarding Claims 9 – 11, Applicant did not address Examiner's rejection and, therefore, remain standing.

Claim Rejections - 35 USC § 101

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Regarding Claim 13, no computer readable medium is described in the specification other than a signal [Para. 0003]. A signal is non-statutory per se.

4. Regarding Claim 14, Applicant attempts to claim a "signal stored on a...transmission medium." As claimed, the transmission medium still comprises a signal [Para. 0006; DVB or DSS]. A signal is non-statutory per se.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 – 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Appl. 2001/0011347, filed by Shanthala Narayanaswamy et al. (hereinafter "Narayanaswamy"), in further view of U.S. Patent 6,308,265, invented by Gregory L. Miller (hereinafter "Miller").

5. Regarding Claims 1 - 3, Narayanaswamy discloses a transmission system and a method [Title; Fig. 3; Para. 0007, 0008, and 0009] of downloading software programs

into a storage unit, the software programs including a boot code and an application code [Para. 0003 and 0004; upgrading and remapping of the boot and main firmware codes], the boot code allowing downloading of the application code [Para. 0035, 0036, and 0038; boot code checks data to determine if new main firmware is available, then downloads new firmware], the storage unit comprising at least a current boot code in a first location [Para. 0007; two separate regions to store boot code, one active, one inactive], the method comprising the following steps: upon a download request, downloading a new boot code in a second location, which does not overwrite the current boot code [Para. 0007, Lines 5-8; two separate regions to store boot code, one active, one inactive; download new boot code into inactive region]; indicating that the new boot code in the second location replaces the current boot code [Para. 0029 and 0030; upon verification of download, terminal reboots and overwrites the processor vector table with the vector table copy of the new boot code]; downloading a new application code associated to the new boot code in a location which does not overwrite the new boot code in the first location [Fig. 2; Para. 0035, 0036, 0037, and 0038; if new main firmware is found, it is downloaded to another memory location different from the present firmware and the new boot code]; and indicating that the new application code is valid [Para. 0038; reset command after successful transfer].

Narayanaswamy, however, does not disclose that the new boot code is downloaded in the section that has the current application code and overwrites the current application code. Nor does Narayanaswamy disclose of writing the new boot code in place of the current boot code in the first location, indicating that the new boot

code written in the first location replaces the new boot code written in the second location.

Miller discloses that the new boot code is downloaded in the section that has the current application code and overwrites the current application code [Col. 2, Lines 11-16; the other parts of the segment can contain other data such as the updatable BIOS]. Miller further discloses of a method and apparatus for updating boot and BIOS code with steps that further include writing the new boot code in place of the current boot code in the first location, [Fig. 3; Col. 3, lines 40-51; updating the first data segment with new data, include boot block code after data is copied into a second data segment] indicating that the new boot code written in the first location replaces the new boot code written in the second location [Fig. 3; Col. 6, Line 44 – Col. 7, Line 21; after the update of the first location with new data, if the boot blocks from the first and second regions match, then the first block is write protected (indicating this is the new boot code) and used to boot the computer].

It would have been obvious to one skilled in the art at the time of the invention to incorporate the teachings of Miller with Narayanaswamy by ensuring that the same boot block is copied from the second location to the first location before the second location is erased to be updated within the nonvolatile storage location in the computer.

The motivation to do so is to ensure that the correct boot code is stored in the first region before write protecting it and erasing a valid downloaded copy of the updated boot code stored in the second region. Furthermore, this allows the second

region to become the backup boot block image if there was a power failure occurring sometime during the updating of the first boot block [Col. 7, Lines 22-28].

6. Regarding Claims 4 and 6, Narayanaswamy, in view of Miller, discloses all the limitations of Claim 2 above. Miller further discloses that the boot sector is located in a protected storage area of the storage unit [Col. 3, Lines 31-35]. Miller also discloses that the current boot code is stored in a protected area of the storage unit, which area can be unprotected to be overwritten under specific software conditions [Col. 3, Lines 35-45].

7. Regarding Claim 5, Narayanaswamy, in view of Miller, discloses all the limitations of Claim 2 above. Miller further discloses that the boot sector is located in a protected storage area separate from the storage unit [Col. 4; Lines 45-53; boot block code stored on EPROM while updating is done in flash memory].

8. Regarding Claim 7, Narayanaswamy, in view of Miller, discloses all the limitations of Claim 2 above. Miller further discloses that the new software program is stored in an area of the storage unit, which area can be protected and unprotected, to be overwritten under specific software conditions [Col. 3, Lines 35-45].

9. Regarding Claim 8, Narayanaswamy, in view of Miller, discloses all the limitations of Claim 2 above. Narayanaswamy further discloses that the new software program includes an intermediate application code, which is a link between the current application code and the new application code enabling a user to parameterize the new software program [Para. 0034, 0035, 0036, 0037, 0038; the application requests the active boot code to start checking a checksum on the data to verify that there is new

firmware and confirms the checksum after the transfer is complete].

10. Regarding Claims 9 and 12 - 15, Narayanaswamy, in view of Miller, in further view of IBM, discloses all the limitations of Claims 1, 2, and 8 above. Narayanaswamy further discloses a transmission system comprising of a transmitter for transmitting software programs and at least a receiver for receiving software programs transmitted by a transmission system [Fig. 3; transmission of new codes are from a separate computer and then received and processed by microprocessor within the electronic device], the receiver comprising means for carrying out the method as claimed in any one of Claims 1 to 8 as stated above. Narayanaswamy also discloses of a computer program product stored on a computer readable medium which when received by a receiver, configures for a receiver computing a set of instructions, which when loaded into the receiver, causes the receiver to carry out the method as claimed in any one of Claims 1 to 8 [Para. 0003; main code is used for regular operation of the device]. Furthermore, Narayanaswamy discloses of a signal for carrying a computer program, the computer program being arranged to carry out the method as claimed in Claim 1 [Fig. 3; transmission from a transmitter to a receiver can be by either analog or digital signal].

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narayanaswamy, in view of Miller, in further view of U.S. Patent 6,205,458 B1 invented by Robert N. Hasburn (hereinafter referenced as "Hasburn").

11. Regarding Claims 10 and 11, Narayanaswamy, in view of Miller, discloses all the limitations of Claim 9 as stated above. However, it does not disclose the use of a file

system nor that the storage unit is a persistent memory allowing protecting/unprotecting memory area upon software instructions.

Hasburn discloses a file system using multiple address locations in the storage area [See Fig. 2, 3, and 7; Abstract; shows multiple address blocks and the use of an address decoder to select the particular memory block]. Hasburn also discloses that the protected storage area can be unprotected upon specific software conditions that change the block sector value [See Fig. 6; Col. 7, Lines 6-10, 14-18].

It would be have been obvious to one skilled in the art, at the time of the invention, to use the same memory blocks to toggle between active and inactive (unprotected) sections to store software.

The motivation to do so is that this will prevent the delay of reinstalling the application software when it does not operate properly due to an incomplete update. Furthermore, this allows the application to use the same addresses to store the software.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 6,178,503 - method and system for boot system management utilizing multiple operating systems in a single device; U.S. Patent 6,665,813 - method and apparatus for updatable flash memory that contains a write protected code, a second copy of rewritable recovery code, and a rewritable composite code.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae K. Kim, whose telephone number is (571) 270-1979. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton B. Burgess, can be reached on (571) 272-3949. The fax phone number for submitting all Official communications is (703) 872-9306. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the examiner at (571) 270-2979.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

/Tae K. Kim/

/Ario Etienne/
Supervisory Patent Examiner, Art Unit 2157